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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,108	07/08/2004	Matthias Koenig	CM00681M	1708

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MOTOROLA, INC.
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SCHAUMBURG, IL 60196

EXAMINER	
NGUYEN, TUAN HOANG	
ART UNIT	PAPER NUMBER
2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/03/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/03/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.Schaumburg@motorola.com
APT099@motorola.com

Office Action Summary	Application No.	Applicant(s)	
	10/501,108	KOENIG, MATTHIAS	
	Examiner	Art Unit	
	Tuan H. Nguyen	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3,5-7,and 9-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3,5-7 and 9-17* is/are rejected.

7)☒ Claim(s) *4 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 01/16/2007 with respect to claims 3, 5-7, and 9-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 3, 5-7, 11-13 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dent (US PAT. 5,903,835) in view of Walter H. Chudleigh, Jr. (US PAT. 3,311,894 hereinafter, "Walter").

Consider claims 5 and 16, Dent teaches a wireless communication unit incorporating a receiver, the receiver comprising: radio frequency circuitry (10) for receiving a radio frequency signal and converting radio frequency signal to a low frequency signal (a second frequency of 6 Mhz) (fig. 1 col. 3 lines 35-40); a signal level (RSSI) adjustment circuit for receiving low frequency signal (fig. 1 col. 3 lines 40-44 e.g.,

the RSSI signal adjusted is proportional to the logarithm of the amplitude); an analogue to digital converter (13), operably coupled to signal level adjustment circuit for receiving an adjusted low frequency signal and providing a digital received signal (fig. 1, col. 3 lines 52-63); and a signal processor (15) operably coupled to the analogue to digital converter for processing digital received signal (fig. 1 col. 3 line 64 through col. 4 line 8).

Dent does not explicitly show that signal level adjustment circuit comprises a low frequency amplifier whose gain is arranged to be dependent upon a clip point of analogue to digital converter; a dynamic compressor function, operably coupled to low frequency amplifier for limiting a signal output from low frequency amplifier, and a fixed attenuator operably coupled to dynamic compressor function to attenuate at a fixed attenuation level a received signal output from dynamic compressor function to below a clip point threshold of analogue to digital converter.

In the same field of endeavor, Walter teaches signal level adjustment circuit comprises a low frequency amplifier whose gain is arranged to be dependent upon a clip point of analogue to digital converter (fig. 1 col. 3 lines 1-19), a dynamic compressor function (7), operably coupled to low frequency amplifier for limiting a signal output from low frequency amplifier (fig. 1 col. 2 line 68 through col. 3 line 1), and a fixed attenuator (10) operably coupled to dynamic compressor function to attenuate at a fixed attenuation level (col. 5 line 73 through col. 6 line 3) a received signal output from dynamic compressor function to below a clip point threshold (predetermined maximum variation in amplitude) of analogue to digital converter (col. 2 line 68 through col. 3 line 19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, signal level adjustment circuit comprises a low frequency amplifier whose gain is arranged to be dependent upon a clip point of analogue to digital converter, a dynamic compressor function, operably coupled to low frequency amplifier for limiting a signal output from low frequency amplifier, and a fixed attenuator operably coupled to dynamic compressor function to attenuate at a fixed attenuation level a received signal output from dynamic compressor function to below a clip point threshold of analogue to digital converter, as taught by Walter, in order to provide controlling amplitude of an analog signal by use of a digital signal derived from analog signal.

Consider claim 3, Walter further teaches the gain of low frequency amplifier is arranged to be dependent upon a clip point of dynamic compressor function (col. 2 line 68 through col. 3 line 19).

Consider claim 6, Walter further teaches fixed attenuator is arranged to be dependent upon a clip point (e.g. 6dB) of analogue to digital converter (col. 5 line 70 through col. 6 line 23).

Consider claims 7 and 17, Walter further teaches fixed attenuator is arranged to be dependent upon a clip point (e.g. 6dB) of dynamic compressor function (col. 2 line 68 through col. 3 line 1).

Consider claim 11, Dent further teaches signal level adjustment circuit negates a need for an automatic gain control circuit (col. 3 lines 35-50).

Consider claim 12, Dent further teaches the wireless communication unit is a subscriber unit or a base transceiver station operating in a wireless communication system (col. 4 line 53 through col. 5 line 6).

Consider claim 13, Dent further teaches the subscriber unit is one of a portable or mobile PMR radio, a mobile phone, a personal digital assistant, a wireless capable laptop computer (col. 4 line 53 through col. 5 line 6).

4. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dent in view of Walter, and further in view of Bazarjani et al. (U.S PAT. 6,005,506 hereinafter, "Bazarjani").

Consider claims 9, Dent and Walter, in combination, fails to teaches low frequency components are at an intermediate or baseband frequency.

However, Bazarjani teaches low frequency components are at an intermediate or baseband frequency (col. 2 lines 24-30).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Bazarjani into view of Dent and Walter, in order to improve efficiency and the ability to detect and correct transmission errors.

Consider claim 10, Bazarjani further teaches receiver has a high dynamic range, for example in excess of 100 dB (col. 3 lines 51-61).

5. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dent in view of Walter, and further in view of Ostman et al. (U.S PAT. 6,069,923 hereinafter, "Ostman").

Consider claims 14, Dent and Walter, in combination, fails to teaches the received signal is a digitally modulated signal.

However, Ostman teaches the received signal is a digitally modulated signal (col. 8 lines 33-34).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Ostman into view of Dent and Walter, in order to process a signal in connection with its reception, when the signal conforms to one or more system specifications.

Consider claim 15, Ostman further teaches the receiver is a linear receiver for receiving said digitally modulated signal (col. 7 lines 6-17).

Allowable Subject Matter

6. Claims 4 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any response to this action should be mailed to:

Mail Stop_____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571)272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571)272-7882882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Nguyen
Examiner
Art Unit 2618

NAY MAUNG
SUPERVISORY PATENT EXAMINER